GR-2014-0007
Report on the Operation and Impact of Various Rate Designs

I. Background

This Report is being submitted pursuant to paragraph 3 of the Stipulation and Agreement in GR-2014-0007. In that provision, the parties to the settlement ("Parties") agreed to work collaboratively to provide the Commission with a report on the operation and impact of various rate designs based on usage, cost and demographics. Specifically, the stipulation stated:

> "In addition to the rate design changes recommended herein, the Parties agree within six months of Commission approval of this Stipulation and Agreement to meet on a monthly basis to:
>
> (a) determine the customer usage, billing, financial, demographic and other data necessary to fully explore and present various rate design structures in MGE's next rate case proceeding, including information that would permit an assessment of the potential impact of such rate design structures on the Company and customers with different usage, cost causation, and demographic characteristics.
>
> (b) work collaboratively to prepare and complete a report for submission to the Commission within 18 months of the completion of the case that will present in as factual and objective a manner as possible the results of the Parties' analysis regarding the operation and impacts of various rate design structures. Such report may also include individual sections where individual Parties may present their individual recommendations regarding appropriate rate design structures and any other complementary ratemaking mechanisms that Parties believe may be necessary or desirable to implement various structures. The Company shall have the responsibility to coordinate the preparation of the report.
>
> (c) Parties are free to take whatever position they believe is appropriate in regard to such matters. It is expressly understood that all Parties reserve the right to propose continuation, elimination or modification of the variable component in MGE's next rate case."

Since that time, the Parties have corresponded and met on multiple occasions to share, analyze, and discuss data and rate design alternatives and prepare a report to be submitted to the Commission. On November 3, 2015, the Parties requested that the Commission issue an order deferring the date for submitting the Report until May 3, 2016. That request was granted on December 2, 2015. This report is being submitted in compliance with such order. It should be noted that while the Parties have had multiple discussions, there was not sufficient time for the Parties to develop a full or partial consensus on the matters address by this report. As a consequence, Laclede Gas, on behalf of its operating units, Missouri Gas Energy and Laclede Gas Company ("Laclede") has attempted to capture a significant portion of the work product produced to date and is presenting that as well as some of its preliminary comments in this report. It is expressly understood, however, that other Parties will have an opportunity to submit responsive comments or data as they deem appropriate.

II. Summary of Laclede's Position

Laclede believes that now is an ideal time to work together to discuss rate design alternatives which would align the interests of customers with those of the Company and regulators. Over the last several decades, customer consumption of natural gas has declined by more than 20%. This has been due to a combination of factors, including conservation efforts by customers, the impact of energy efficiency and weatherization programs offered by Laclede and its operating units, and the introduction of new energy efficient appliances and improvements made to the insulation of housing stock of customers. At the same time, the significant decline in natural gas prices due to the incredible increase in supply resulting from new extraction technologies, in addition to increased management of ongoing operating costs, has reduced what Laclede's customers pay for natural gas service to their lowest level in more than a decade. All of these factors provide a suitable environment for examining and implementing rate design solutions. In assessing the merits of various approaches, Laclede believes certain fundamental considerations need to guide the discussion and inform the kind of rate design solution ultimately adopted by the Commission.

Those considerations include solutions that:

> (1) will relieve customers and the utility alike from the adverse and unpredictable financial impacts of weather-related changes in customer usage – impacts that are largely beyond the control of both;
> (2) will remove financial disincentives to the pursuit of energy efficiency measures and programs that can help customers conserve on their usage of natural gas in a way that benefits both their pocketbook and well as the environment;
> (3) will consider the interests of low-income customers in retaining access to natural gas service by examining the impact of various alternatives on all customers;
> (4) will properly reflect cost causation principles, including the principle that fixed costs should generally be recovered on a fixed basis and variable costs on a variable basis;
> (5) will most effectively utilize ratemaking tools available to the Commission under Missouri law.

Members of the group might disagree over the importance of each of these objectives, but not addressing them at all may be generally unfavorable to customers, the Company and regulators.

Currently, utilities across the country have proposed a number of innovative regulatory mechanisms to address the specific challenges facing companies and consumers. These include straight fixed variable rate designs (SFV), mechanisms for revenue decoupling, bad-debt recovery, infrastructure replacement cost recovery, revenue stabilization and weather normalization adjustments. It is incumbent on our group to assess rate designs that offer value to all stakeholders. In order to accomplish, this consumer education will become essential. Customers need to understand what we are attempting to do and why.

We believe rate designs that address the realities of energy efficiency and resource conservation can serve the interests of all stakeholders: customers, utilities and regulators.

III. Data Analysis

Residential billing data was analyzed for both the Laclede Gas ("Laclede Gas") and Missouri Gas Energy "(MGE") service territories. Annual billing intervals were reviewed for both Laclede Gas and MGE. As can be seen from the chart below, between 12 – 15% of all residential customers (who are on the system for 12 consecutive months) use less than 500 units of energy annually. Customers with low consumption patterns generally exhibit little to no space heating requirements but, rather, use it for other items (e.g., cooking, water heating). Low use customers are comparatively adversely impacted by shifts in delivery charge cost recovery from a volumetric basis to a "fixed charge" basis within their rate class. Conversely, movement of cost recovery from a fixed charge basis to a volumetric basis will shift additional cost responsibility to higher use customers within the same customer class.

Annual Residental Billing Intervals

Cumulative Customers Below Interval	MGE	Laclede	
	Dec-14	Sep-14	Oct-15
Under 500 CCF / Therms	12.4%	12.1%	15.3%
Under 900	56.4%	54.7%	63.2%
Average Usage	906	933	856
Actual Degree Days	5,077	5,058	4,586
Normal Degree Days	5,133	4,535	4,535

Customers with 12 months of consecutive usage data

The Parties also explored the relationship between customer income levels and natural gas usage. Laclede residential billing data from its service territory was aggregated by zip code and merged with 2010 census data to match, by zip code, gas usage per customer and median income levels. A similar study was prepared for the MGE service territory. The information was then graphed with the x-axis representing income levels and the y-axis representing the average use per customer for a 12 month period.

Attached as Exhibit 1 are the graphical representations for both the MGE service territory and the Laclede Gas service territory. The information is presented on both a full year basis as well as just for the winter months. Winter period data was analyzed separately to take into

consideration that it represents the Cold Weather Rule period where, generally, customers are more likely to be on the system regardless of income levels (due to heating assistance such as LIHEAP and ECIP and the requirements of the Cold Weather rule itself). 3rd order polynomial trendlines were added with the polynomial equation set out on the graph. While the R^2 values are not very high, the trendlines reveal aspects of a slightly pronounced "U" shape where low income levels appear to be correlated with higher than average usage levels. Then as income levels increase, the usage appears to trend towards (and even below) the average only to gravitate higher again as the income levels continue to increase. While the graphs do not indicate that low income is highly correlated with high gas usage, it appears to be an influencing factor, possibly due to poor housing stock and older, less efficient appliances (furnaces, water heaters, etc) as well as other factors. Additional analysis in this area is merited.

The graph on page 3 of Exhibit 1 aggregates the data in a more "macro" fashion. Zip code information with income levels were aggregated in increments of $5,000 tranches (e.g. $10,000 - $15,000, $15,000 - $20,000, …) and graphed against average aggregate usage by tranche. As one might expect, people living in the areas with the lowest income brackets ($10,000 - $15,000) had below average usage. However the gas usage in the next three tranches (income between $15,000 - $30,000) were at levels higher than the system-wide average for the period (system average of 784.5 therms during the period analyzed).

Average Income Interval	**Annual Usage**
$10,000-$15,000	604.7
$15,000-$20,000	1,003.0
$20,000-$25,000	948.3
$25,000-$30,000	830.0

Subsequent income levels appear to stay at or below the system average until the tranche that has an average income between $60,000 - $65,000, and then usage again begins to climb as income increases. One conclusion that can be made from this "macro" look at the graph is that any rate design that creates a "low use" rate while allocating the remainder of the customer class cost responsibility to the other customers within the residential class could put an undue additional hardship on some of the customers least able to afford it – customers at or just above the poverty level who either can't qualify or do not apply for heating assistance.

Rate Design Alternatives

During the pendency of the MGE rate case that resulted in the creation of this collaborative process, some Parties expressed a desire to look at the possibility of a special rate for low use customers, though the amount of usage for this class was not defined. This section of the report will explore the rate impacts and sensitivities of various rate designs and how those rate designs will impact customers overall bills at various usage levels. Alternatives to be included are:

- Laclede's current "Weather Mitigation Rate Design" ("WMRD")
- A low use rate with a lower customer charge but higher volumetric charge

- A straight fixed variable ("SFV") rate design (similar to how MGE's was before the settlement in GR-2014-0007)
- A more traditional rate design (with a weather normalization clause as an overlay)

Section 386.266.3 of the Missouri Revised Statutes states, "Subject to the requirements of this section, any gas corporation may make an application to the commission to approve rate schedules authorizing periodic rate adjustments outside of general rate proceedings to reflect the nongas revenue effects of increases or decreases in residential and commercial customer usage due to variations in either weather, conservation, or both." (L. 2005 S.B. 179) To date, no Commission rules have been promulgated enacting this statutory provision. However, the Commission Staff has utilized rate design methods, including the WMRD (Laclede and Ameren) and SFV (MGE and Liberty) rate designs, to mitigate the effects of weather and customer conservation. In MGE's most recent rate proceeding, as part of a settlement, a small but significant volumetric component was again added into the Residential rate design.

Laclede's current "Weather Mitigation Rate Design" ("WMRD")

Laclede's Weather Mitigation Rate Design ("WMRD") which has been in effect since 2002 attempts to recover the entirety of the Company's distribution costs allocated to the winter season for General Service rate customers in the Customer Charge and first rate block. No distribution costs are recovered in the second rate block during the winter season. For residential customers, the first rate block currently is defined as the first 30 therms of consumption each month under the assumption that most customers, especially in the coldest winter months, will use 30 therms and any reduction in usage as a result of warmer weather is likely to occur in the second rate block where no distribution costs are recovered. However, as an adjunct to this approach, in order to mitigate the impact on small customers, the Company's PGA rates are blocked as well so that the PGA rate applicable to the first 30 therms of consumption for residential customers is smaller than the PGA rate for consumption over 30 therms. While WMRD has reduced the impact of weather variations from normal on the Company's recovery of distribution costs and customer bills compared to a traditional rate design, since warmer weather and conservation can still impact consumption even in the first rate block, especially in shoulder months, the Company's recovery of distribution costs from customers can be less than or greater than under SFV, albeit in an assymetrical fashion.

Oklahoma and the Low Use Rate

In Oklahoma, Oklahoma Natural Gas has a low use tariff for customers who use less than 500 therms a year. Please see Exhibit 2 for a copy of the tariff. All other residential customers pay an SFV rate. The rate structure is as follows:

Oklahoma Natural Gas Example

	Customer Charge	Per Therm Delivery Charge
Rate A*	$ 16.43	$ 0.41143
Rate B	$ 33.57	$ -

* Customers who use less than 500 therms annually

Anecdotally, one may be able to justify a lower rate for low use customers based on the premise that they have a higher load factor as their usage is less affected by space heating requirements – thereby contributing less to coincident peak demand versus average system demand (although they likely use natural gas for water heating which does contribute to system peak); however, the impact of this higher utilization rate on distribution system costs is hard to differentiate from average or higher use customers. Alternatively, the low use customer would likely have less of an effect on pipeline capacity reservation charges and the need for peaking gas supplies (rather than swing or baseload supplies) which may justify a reduction in their commodity charge. The vast majority of costs to serve customers within the residential class (meters, service lines, billing costs, administrative overheads) do not vary based on usage, thus suggesting use of straight fixed-variable designs that are nearly entirely or fully fixed charge oriented. Within the residential customer class, however, if there are going to be "winners", that implies that there would be "losers" (i.e., the high use customer would be allocated more of the demand related costs). To date, the residential customer class has not been bifurcated in that fashion as that class has been considered to be homogenous – even though there are always some amount of differences in usage, costs to serve, and demographics within any class. The Oklahoma low use rate is designed to recover less distribution charge from this customer class than those under Rate B under the presumption that these customers are differently situated and have a lower distribution cost.

"Straight Fixed-Variable" ("SFV") Rate Design

Under a Straight-Fixed Variable ("SFV") rate structure, Residential customers will simply pay a flat monthly fee for the delivery services provided, and will continue to pay on a volumetric basis through the Purchased Gas Adjustment ("PGA") for the amount of gas commodity used each month. An SFV rate structure achieves a fundamental objective of ratemaking – the proper alignment of costs with revenues and rates.

There are numerous benefits to the Company and its customers with a single, fixed monthly bill concept under a proposed SFV rate design. They include:

- Customers don't overpay or underpay each month.
- Addresses intra-class cross subsidization.
- Improved bill stability.

- Achieves bill simplicity and promotes understandability.
- Expectation of fewer bill complaints.
- Matches approved level of revenues with costs.
- Similar pricing to other consumer services.
- Simplifies revenue forecasts and adjustments.
- Lower Average Bill Calculation ("ABC") true-ups.

More Traditional Rate Design

Instead of recovering the entirety of a utility's distribution costs in a very large customer charge as with the SFV approach described above, under a more traditional rate design, the Company's rates would consist of a more modest customer charge and a single volumetric distribution rate (or, possibly, an blocked rate structure) that would recover all costs other than those recovered through the customer charge. In addition, customers would pay the same PGA rate for each unit of consumption. However, with the relatively large volumetric distribution charge that accompanies the modest customer charge under this design, weather and conservation could have a large impact on customer bills and the utility's recovery of distribution costs as sales volumes fluctuate from year to year. For this reason, from the Company's standpoint, even though customers would be billed for distribution costs in proportion to their gas usage, a more traditional rate design would only be fair to the Company and customers if it was used in conjunction with a Customer Usage Adjustment or weather clause.

Comparison of Rate Design Alternatives

As discussed above, a review was done at various usage levels for the WMRD, the Low Use rate, a SFV rate, and a traditional rate overlapped with a weather normalization clause. The base distribution rates for each of the alternatives were as follows:

Comparison of Distribution Rates

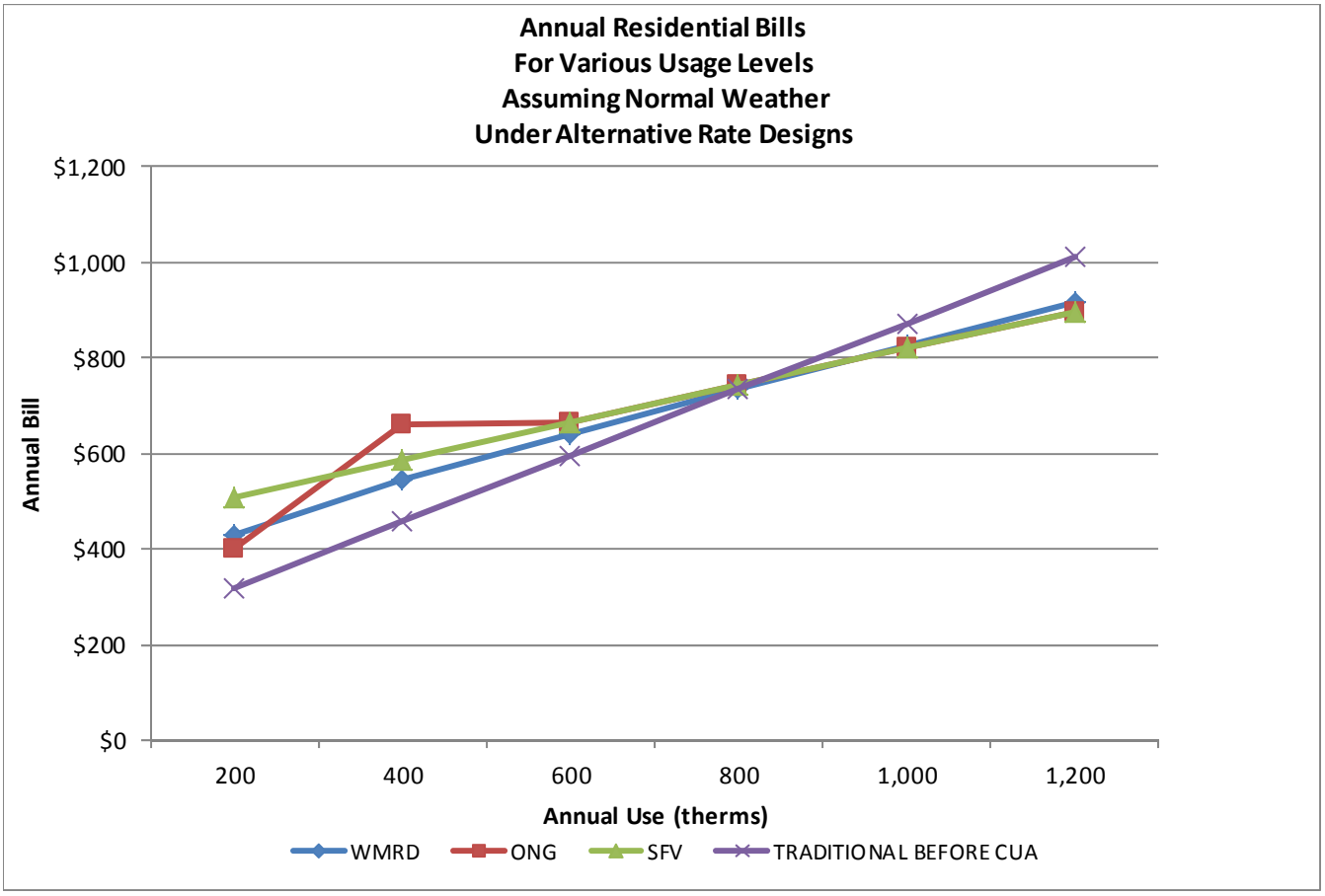
		Customer	Volumetric Charge	
		Charge	< 30 Therms	> 30 Therms
WMRD	Winter	$19.50	$0.91686	$0.00000
	Summer	$19.50	$0.31290	$0.15297
			All Therms	
ONG Low Use		$36.00	$0.00000	
SFV		$35.97	$0.00000	
Traditional		$15.00	$0.30430	

A comparison of the rate impacts at various annual usage levels can be seen in the following table and graph:

Annual Bill Including Gas Costs*

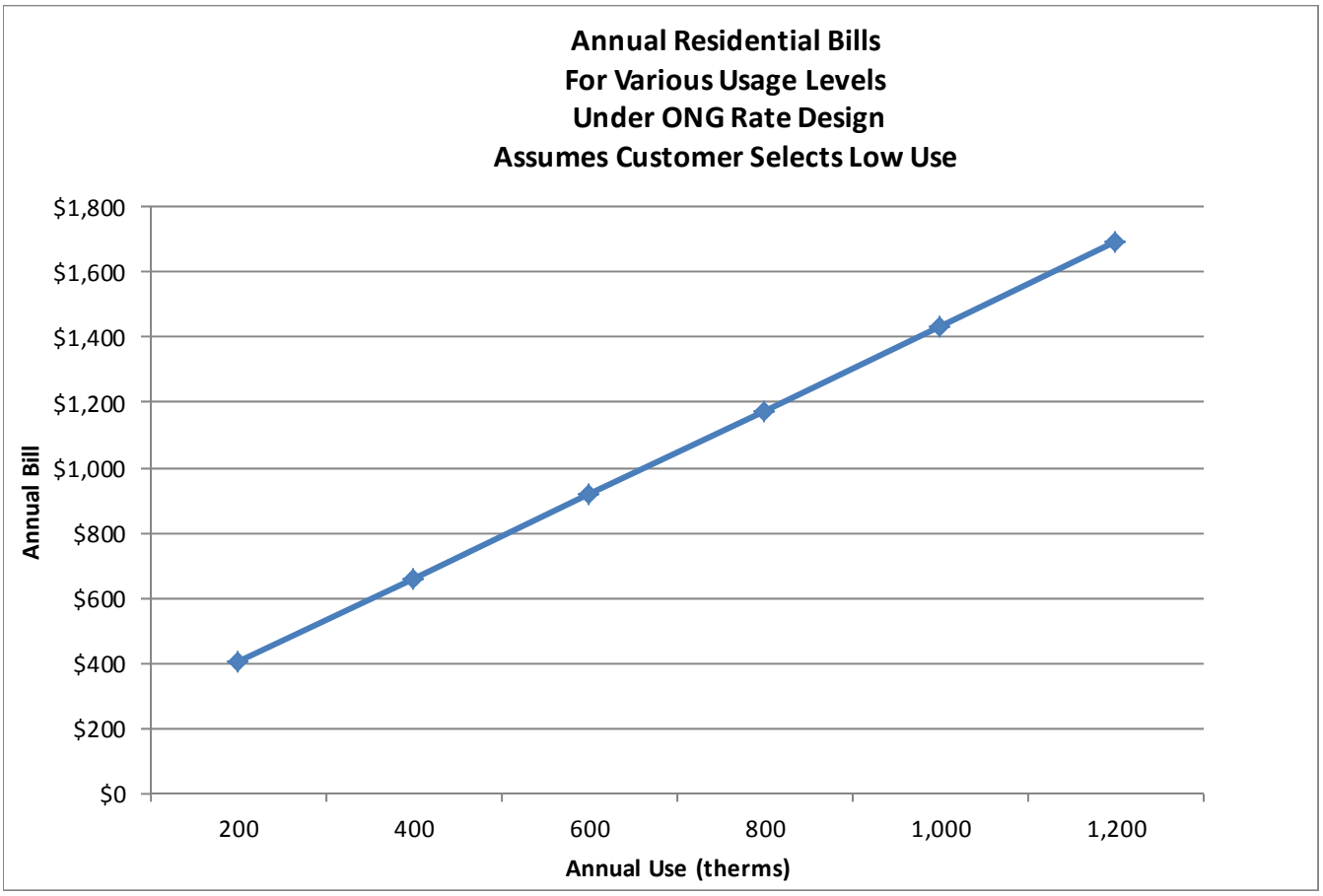
	Annual Usage (Therms)					
	200	**400**	**600**	**800**	**1,000**	**1,200**
WMRD	$427.61	$542.80	$638.09	$732.56	$825.24	$917.27
ONG Rate A / B	$401.64	$658.70	$664.37	$741.99	$819.62	$897.08
SVF	$509.12	$586.40	$664.03	$741.65	$819.28	$896.74
Traditional	$318.26	$456.21	$594.81	$733.36	$871.94	$1,010.19
ONG Rate A with Customer with Higher	$401.64	$658.70	$916.91	$1,175.12	$1,433.33	$1,690.99

* Gas costs based on $.38763 per therm (blocked for WMRD)

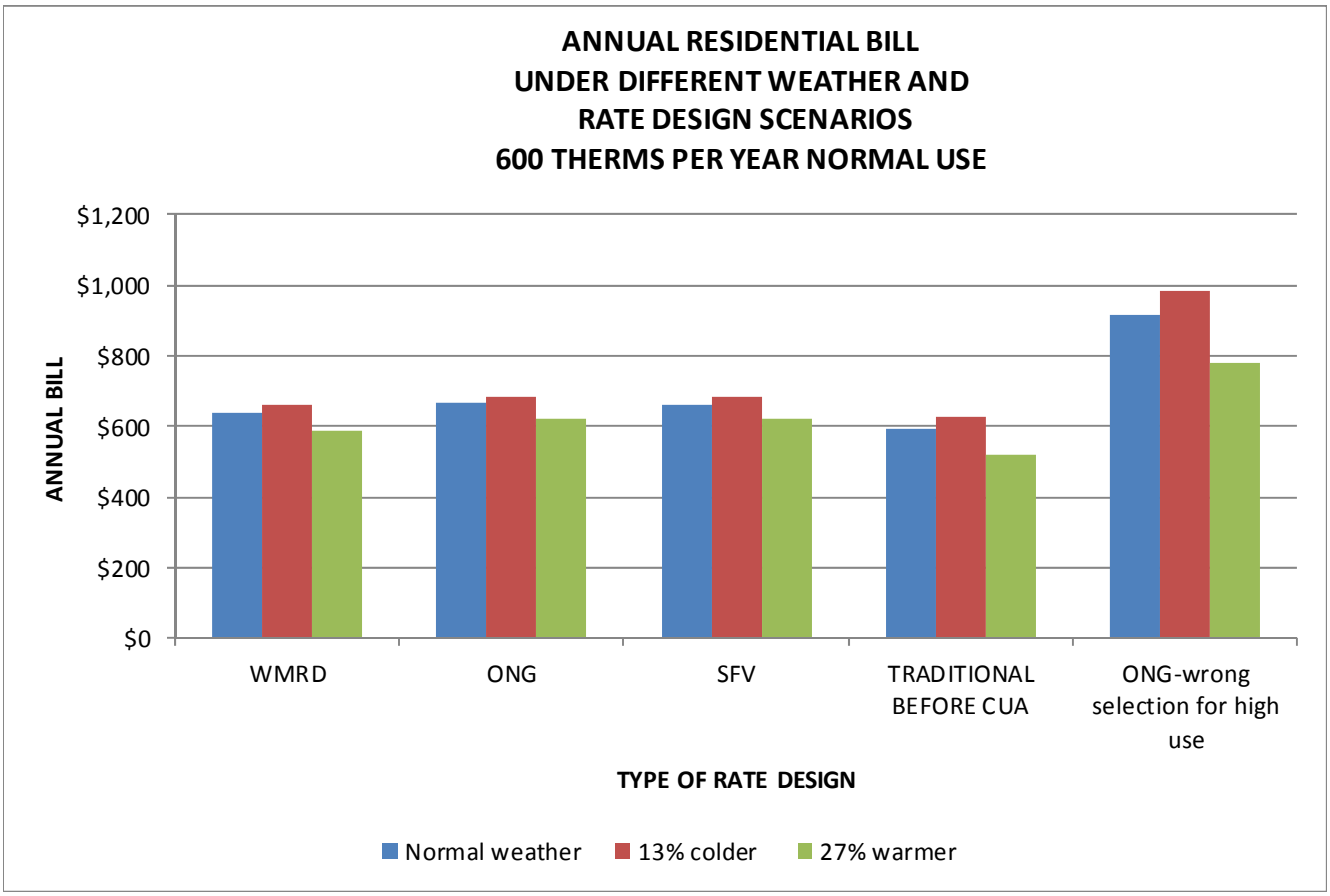


In each of the alternatives presented, each of the rate designs (except the ONG rate A) utilized rate elements that would produce the equivalent "base rate" revenues for a customer who

used the system average annual usage. As can be seen from the chart and graph, under normal weather conditions, the "traditional" rate design would produce the lowest bill at low usage levels, but the highest bill at higher usage levels. Of note, however, is the potential for a customer to be misapplied on the ONG low use rate and is significantly penalized for higher levels of consumption. This shows the potential issue with setting a "low use' rate, as in the ONG example, if the customer increases his usage in an annual period without opting out of the rate.



All the rate design alternatives subjects the customer to weather to varying degrees. In an attempt to gauge weather sensitivity, scenarios were run based on 2 recent weather events in the St. Louis area – fiscal 2012 which was 27% warmer than normal and fiscal 2014 which was 13% colder than normal. The following graph shows the relative indicative weather variability of each rate design alternative:



The graph shows that the bills for each of the rate design alternatives are fairly similar. This is largely due to the fact that we assumed each of them pays the same amount in gas costs. As the data in the following tables indicate (and as would be expected), the straight fixed variable (also the ONG Rate B) show the least weather variability, the WMRD is more weather sensitive, and the most weather sensitive is the "traditional" rate design which have relatively low fixed (customer) charges and higher volumetric charges. The impact of the various rate designs on the utility's base rate revenue (exclusive of gas costs) are similarly impacted. In warm weather periods, the "traditional" rate design causes the utility to under-recover its base rate revenues to a greater extent than the WMRD and the SFV whereas, but in colder than normal conditions, it provides a comparative windfall. Low use customers would contribute relatively less towards recovery of system costs than high use customers – a benefit to the low use residents at the expense of the high use population.

As discussed earlier, the Commission has legislative authority to overlay a weather normalization clause "(CUA") to the "traditional" rate design which would make the utility indifferent to the rate design alternatives. Such an alternative would allow the customer charge to stay relatively low and place more of the base cost recovery in the volumetric rates. This sort of rate design is successfully utilized in many states, including Alabama.

% Change in Total Annual Residential Bill
As a Result of Weather Variations From Normal
Under Various Rate Designs

400 therm per year normal use

Type of rate design	13% colder	27% warmer
WMRD	2.7%	-7.6%
ONG	6.6%	-13.8%
SFV	2.2%	-4.7%
TRADITIONAL BEFORE CUA	5.1%	-10.7%
ONG-wrong selection for high use	6.6%	-13.8%

% Change in Total Annual Residential Bill
As a Result of Weather Variations From Normal
Under Various Rate Designs

800 therm per year normal use

Type of rate design	13% colder	27% warmer
WMRD	3.8%	-8.7%
ONG	3.5%	-7.4%
SFV	3.5%	-7.4%
TRADITIONAL BEFORE CUA	6.4%	-13.3%
ONG-wrong selection for high use	7.4%	-15.5%

% Change in Total Annual Residential Bill
As a Result of Weather Variations From Normal
Under Various Rate Designs

1,200 therm per year normal use

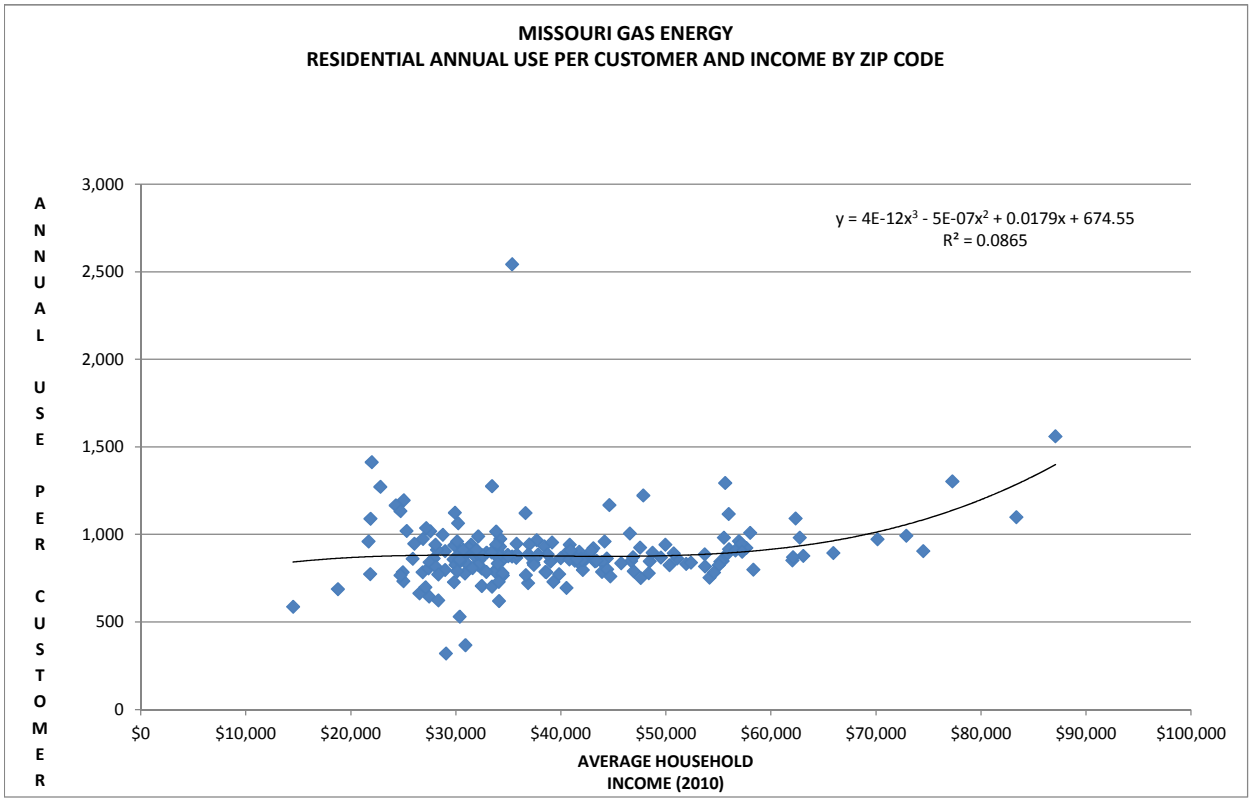
Type of rate design	13% colder	27% warmer
WMRD	4.7%	-10.2%
ONG	4.4%	-9.2%
SFV	4.4%	-9.2%
TRADITIONAL BEFORE CUA	6.9%	-14.5%
ONG-wrong selection for high use	7.7%	-16.2%

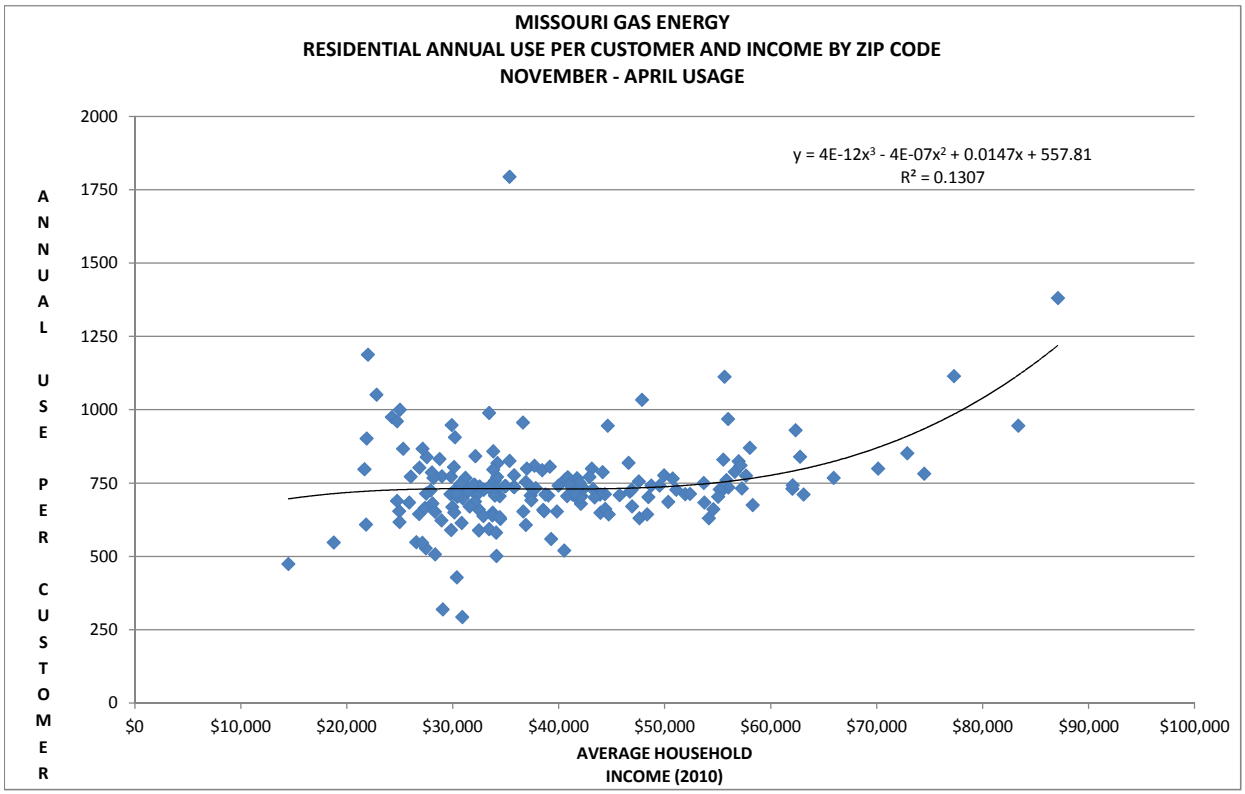
Energy Efficiency Considerations

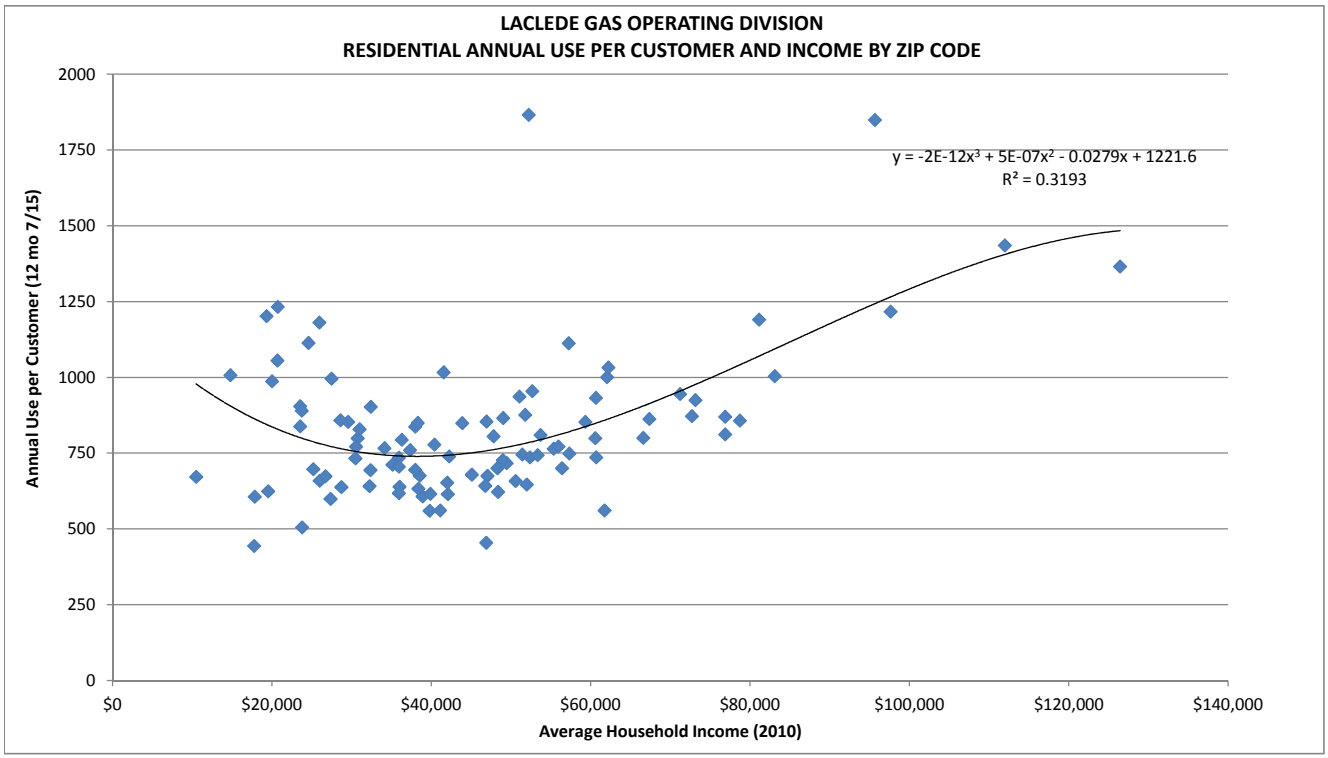
Gas costs currently make up approximately 50% - 60% of a typical customer's bill so any energy efficiency measures taken will still yield a meaningful return on investment. The SFV rate design and a "traditional" rate design with a CUA both make the utility largely indifferent to customer usage and allow the utility to become a partner with its customers in advancing energy efficiency measures.

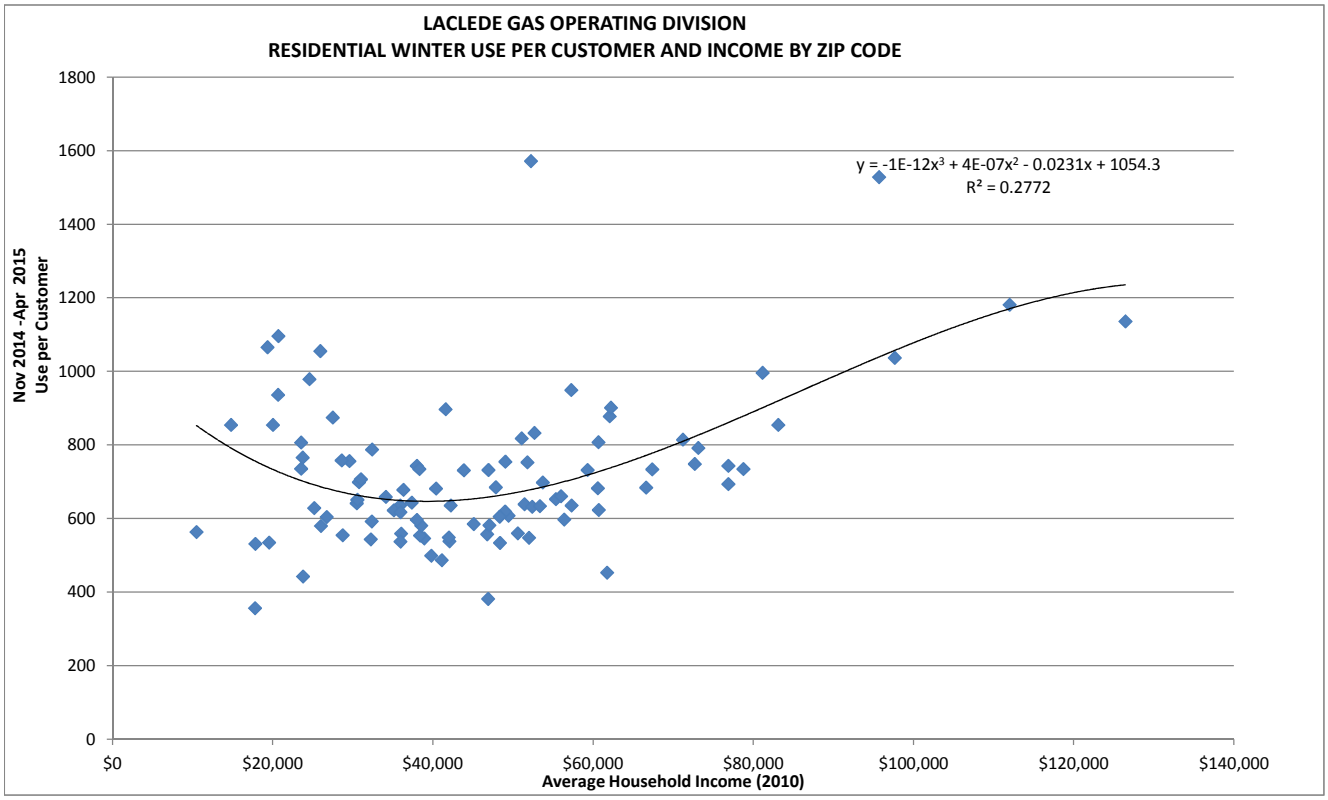
Conclusion

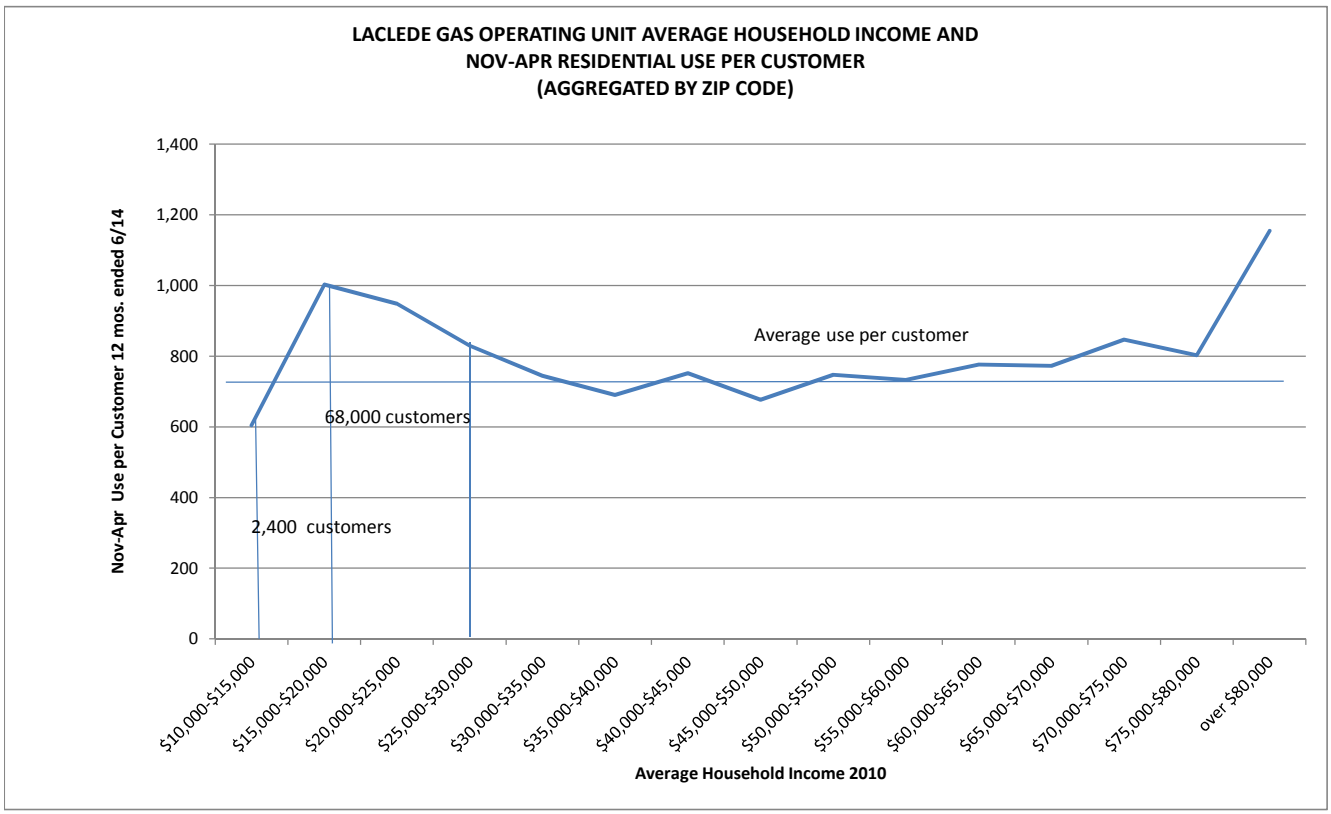
This report has presented certain customer demographic data and various rate design alternatives related to the residential customer class in response to discussions held in the settlement of GR-2014-0007. Two rate design possibilities were presented to address the "low use" customer although it should be noted that the cost causation justification for creating such a rate is speculative at best and could come at the expense of customers who have above average usage regardless of income. Like many alternatives, such an approach has both its pros and cons, but of more importance may be that it could have an unintended consequence for customers seeking lower utility bills to address their economic situation; however due to poorly insulated housing and/or old, low efficiency appliances may have relatively higher usage that results in the opposite outcome – a higher bill. Although the parties may disagree as to the relationship between income and usage, any rate design that places more of the system cost recovery on usage will have an adverse impact on the "low income, high use" customer – the ones who are the least able to afford the intra-class cost shift a low use rate may cause.


MISSOURI GAS ENERGY
RESIDENTIAL ANNUAL USE PER CUSTOMER AND INCOME BY ZIP CODE
y = 4E-12x³ - 5E-07x² + 0.0179x + 674.55
R² = 0.0865
ANNUAL USE PER CUSTOMER
3,000
2,500
2,000
1,500
1,000
500
0
$0
$10,000
$20,000
$30,000
$40,000
$50,000
$60,000
$70,000
$80,000
$90,000
$100,000
AVERAGE HOUSEHOLD INCOME (2010)


MISSOURI GAS ENERGY
RESIDENTIAL ANNUAL USE PER CUSTOMER AND INCOME BY ZIP CODE
NOVEMBER - APRIL USAGE
y = 4E-12x³ - 4E-07x² + 0.0147x + 557.81
R² = 0.1307
ANNUAL USE PER CUSTOMER
2000
1750
1500
1250
1000
750
500
250
0
$0
$10,000
$20,000
$30,000
$40,000
$50,000
$60,000
$70,000
$80,000
$90,000
$100,000
AVERAGE HOUSEHOLD INCOME (2010)


LACLEDE GAS OPERATING DIVISION
RESIDENTIAL ANNUAL USE PER CUSTOMER AND INCOME BY ZIP CODE
y = -2E-12x³ + 5E-07x² - 0.0279x + 1221.6
R² = 0.3193
Annual Use per Customer (12 mo 7/15)
2000
1750
1500
1250
1000
750
500
250
0
$0
$20,000
$40,000
$60,000
$80,000
$100,000
$120,000
$140,000
Average Household Income (2010)


LACLEDE GAS OPERATING DIVISION
RESIDENTIAL WINTER USE PER CUSTOMER AND INCOME BY ZIP CODE
y = -1E-12x³ + 4E-07x² - 0.0231x + 1054.3
R² = 0.2772
Nov 2014 -Apr 2015
Use per Customer
1800
1600
1400
1200
1000
800
600
400
200
0
$0
$20,000
$40,000
$60,000
$80,000
$100,000
$120,000
$140,000
Average Household Income (2010)


LACLEDE GAS OPERATING UNIT AVERAGE HOUSEHOLD INCOME AND
NOV-APR RESIDENTIAL USE PER CUSTOMER
(AGGREGATED BY ZIP CODE)
Nov-Apr Use per Customer 12 mos. ended 6/14
1,400
1,200
1,000
800
600
400
200
0
Average use per customer
68,000 customers
2,400 customers
$10,000-$15,000
$15,000-$20,000
$20,000-$25,000
$25,000-$30,000
$30,000-$35,000
$35,000-$40,000
$40,000-$45,000
$45,000-$50,000
$50,000-$55,000
$55,000-$60,000
$60,000-$65,000
$65,000-$70,000
$70,000-$75,000
$75,000-$80,000
over $80,000
Average Household Income 2010

RATE SCHEDULE 101
RATE CHOICES A AND B
RESIDENTIAL GAS SERVICE

Availability

Natural gas service under this rate schedule is available to any individually metered single family residential customer for domestic uses at any point on the Company's system. Natural gas service under this tariff is also available to any individually metered single family residential customer for domestic uses at any point on the system of another pipeline with respect to which the Company has an agreement with such pipeline or is taking gas pursuant to a tariff for such service but only to the extent that: (1) such single family residential meter exists as of the effective date of this tariff; (2) service is required by operation of law; or (3) service is agreed to by such other pipeline.

This tariff shall also be available for individually metered two-family dwellings when the customer meets the following two (2) criteria: (1) The customer is responsible for payment of the bill; and (2) The customer is an occupant of one of the two dwellings served by the single meter. This rate shall not be available for any 3-(or more)-family dwellings served by one meter. The Company shall have the right to determine and confirm from time to time that the customer meets the criteria contained herein. Denial of access to the property to determine compliance with such criteria shall constitute grounds for denial of service pursuant to this tariff.

Gas service under this tariff is available for compressed natural gas facilities installed by the residential customer to serve their motorized vehicles.

Gas service is not available under this rate schedule for resale to others or for standby service.

Rates Authorized By The Oklahoma Corporation Commission:

Effective	Order No.	Cause/Docket No.
January 6, 2016	648326	PUD 201500213
August 8, 2014	628742	PUD 201400069
August 1, 2013	614409	PUD 201300032
July 19, 2012	599934	PUD 201200029
July 5, 2011	586900	PUD 201100034
May 12, 2011	585366	PUD 201000143
September 22, 2010	578795	PUD 201000048
December 18, 2009	572180	PUD 200900110

APPROVED
January 20, 2016
DIRECTOR OF PUBLIC UTILITY

Rate Choices

The charge for recorded consumption of gas at one point of delivery in any month is as follows:

	Service Charge	Delivery Fee
For Rate Choice **A**	$16.43	$4.1143 Per Dth
	Service Charge	**Delivery Fee**
For Rate Choice **B**	$33.57	$0.00 per Dth

Customer Choice Rate Placement

Each customer's individual rate schedule will be determined based on the annual normalized volume at the customer's service location for the twelve (12)-month period ending on November 30, 2009. If the customer's service location's annual normalized volume is less than 50 Dth, then the customer's account will be placed on Choice **A**.

If the customer's service location's annual normalized volume is 50 Dth or greater, then the customer's account will be placed on Choice **B**.

An anticipated annual normalized usage level assessment will be conducted on each new service and for existing service as of December 31, 2009 that has less than twelve (12) months of service. The results of this assessment will decide the initial rate choice for the new account.

A customer may switch rate choices at any time during the year provided that the customer agrees to remain on the alternative rate choice for a period of no less than twelve (12) months after switching options. Changes will be effective with the Customer's next scheduled bill.

Note: Meter readings will be recorded in hundreds of cubic feet (.1 Mcf) or multiples thereof.

Rates Authorized By The Oklahoma Corporation Commission:

Effective	Order No.	Cause/Docket No.
January 6, 2016	648326	PUD 201500213
August 8, 2014	628742	PUD 201400069
August 1, 2013	614409	PUD 201300032
July 19, 2012	599934	PUD 201200029
July 5, 2011	586900	PUD 201100034
May 12, 2011	585366	PUD 201000143
September 22, 2010	578795	PUD 201000048
December 18, 2009	572180	PUD 200900110

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Commodity Cost of Gas

The indicated rates do not include the applicable commodity cost of gas which shall be added pursuant to Special Terms and Conditions, Tariff No. 1001.

Subject to:

Special Provisions	**Tariff**
Purchased Gas Adjustment Clause	1001
Gross Receipts & Franchise Tax Adjustments	1011
Order of Curtailment	1031
Miscellaneous Special Charges	1041
Miscellaneous Terms and Conditions	1051
Miscellaneous Fees and Taxes	1053
Unrecovered Purchased Gas Cost Adjustment	1071
** Temperature Adjustment Clause	1141
Performance Based Rate Change (PBRC)	1201

**** Applicable to Rate Choice A Customers ONLY**

Payment

Bills are to be paid within 20 days after the date of Company's bill to Customer.

Rates Authorized By The Oklahoma Corporation Commission:

Effective	Order No.	Cause/Docket No.
January 6, 2016	648326	PUD 201500213
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September 22, 2010	578795	PUD 201000048
December 18, 2009	572180	PUD 200900110

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RATE SCHEDULE 101-V
RESIDENTIAL GAS SERVICE – VOLUNTARY FIXED PRICE PROGRAM

Availability

Customers who subscribe for service under this tariff shall remain under this tariff for the entire fiscal year period in which this program is offered, beginning in November of the current year and ending in October of the following year. Additionally, customers under this tariff will utilize the Company's Temperature Adjustment Clause (TAC) and are not eligible to opt out of TAC as provided in Tariff 1141, Section 2 while enrolled in the Voluntary Fixed Price (VFP) Program. Customers are required to re-subscribe to the program each year, provided that the VFP Program continues to be offered. Customers not specifically electing to continue under the VFP Program will revert back to their applicable tariff.

Natural gas service under this rate schedule is available to any individually metered single family residential customer for domestic uses at any point on the Company's system. Natural gas service under this tariff is also available to any individually metered single family residential customer for domestic uses at any point on the system of another pipeline with respect to which the Company has an agreement with such pipeline or is taking gas pursuant to a tariff for such service but only to the extent that: (1) such single family residential meter exists as of the effective date of this tariff; (2) service is required by operation of law; or (3) service is agreed to by such other pipeline.

This tariff shall also be available for individually metered two-family dwellings when the customer meets the following two (2) criteria: (1) The customer is responsible for payment of the bill; and (2) The customer is an occupant of one of the two dwellings served by the single meter. This rate shall not be available for any 3-(or more)-family dwellings served by one meter. The Company shall have the right to determine and confirm from time to time that the customer

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meets the criteria contained herein. Denial of access to the property to determine compliance with such criteria shall constitute grounds for denial of service pursuant to this tariff.
Gas service under this tariff is available for compressed natural gas facilities installed by the residential customer to serve their motorized vehicles.

Gas service is not available under this rate schedule for resale to others or for standby service.

Rate Choices

The charge for recorded consumption of gas at one point of delivery in any month is as follows:

	Service Charge	Delivery Fee
For Rate Choice **A**	$16.43	$4.1143 Per Dth
	Service Charge	**Delivery Fee**
For Rate Choice **B**	$33.57	$0.00 per Dth

Customer Option Placement

Each customer's individual rate schedule will be determined based on the annual normalized volume at the customer's service location for the twelve (12)-month period ending on November 30, 2009. If the customer's service location's annual normalized volume is less than 50 Dth, then the customer's account will be placed on Option **A**.

If the customer's service location's annual normalized volume is 50 Dth or greater, then the customer's account will be placed on Option **B**.

An anticipated annual normalized usage level assessment will be conducted on each new service and for existing service as of December 31, 2009 that has less than twelve (12) months of service. The result of this assessment will decide the initial placement of the new account.

Rates Authorized By The Oklahoma Corporation Commission:

Effective	Order No	Cause/Docket No.
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A customer may switch options at any time during the year provided that the customer agrees to remain on the alternative rate choice for a period of no less than twelve (12) months after switching options.

Note: Meter readings will be recorded in hundreds of cubic feet (.1 Mcf) or multiples thereof.

Commodity Cost of Gas

The indicated rates do not include the applicable commodity cost of gas which shall be added pursuant to Special Terms and Conditions, Tariff No. 1001-V.

Subject to:

Special Provisions	**Tariff**
Purchased Gas Adjustment Clause	1001-V
Gross Receipts & Franchise Tax Adjustments	1011
Order of Curtailment	1031
Miscellaneous Special Charges	1041
Miscellaneous Terms and Conditions	1051
Municipal Fees and Taxes	1053
** Temperature Adjustment Clause	1141
Performance Based Rate Change (PBRC)	1201

**** Applicable to Rate Choice A Customers ONLY**

Payment
Bills are to be paid within 20 days after the date of Company's bill to Customer.

Rates Authorized By The Oklahoma Corporation Commission:

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September 22, 2010	578795	PUD 201000048
December 18, 2009	572180	PUD 200900110

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RATE SCHEDULE 102
SPECIAL LOW INCOME RESIDENTIAL GAS SERVICE

Availability

Natural gas service under this rate schedule is available only to those individually metered single family residential customers who are qualified by the Department of Human Services (DHS), and who are certified to Oklahoma Natural Gas by the DHS annually for payments under the federally funded Low Income Home Energy Assistance Program (LIHEAP). Gas sold under this rate schedule is for domestic uses at any point on the Company's system. Natural gas service under this tariff is also available to any individual metered single family residential customer who is qualified by DHS and who is certified to Oklahoma Natural Gas by the DHS annually for payments under the federally funded Low Income Home Energy Assistance Program (LIHEAP) that is on the system of another pipeline with respect to which the Company has an agreement with such pipeline or is taking gas pursuant to a tariff for such service but only to the extent that: (1) such single family residential meter exists as of the effective date of this tariff; (2) service is required by operation of law; or (3) service is agreed to by such other pipeline.

This tariff shall also be available for individually metered two-family dwellings when the customer meets the following two (2) criteria: (1) The customer is responsible for payment of the bill; and (2) The customer is an occupant of one of the two dwellings served by the single meter. This rate shall not be available for any 3-(or more)-family dwellings served by one meter. The Company shall have the right to determine and confirm from time to time that the customer meets the criteria contained herein. Denial of access to the property to determine compliance with such criteria shall constitute grounds for denial of service pursuant to this tariff.

Gas service is not available under this rate schedule for resale to others or for standby service.

Rate

The charge for recorded consumption of gas at one point of delivery in any month is as follows:

Service Charge			$3.900	per Month
First	3	Dth per Month @	$2.350	per Dth
Over	3	Dth per Month @	$0.079	per Dth

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Note: Meter readings will be recorded in hundreds of cubic feet (.1 Mcf) or multiples thereof.

Commodity Cost of Gas
The indicated rates do not include the applicable commodity cost of gas which shall be added pursuant to Special Terms and Conditions, Tariff No. 1001.

Subject to:

Special Provisions	Tariff
Purchased Gas Adjustment Clause	1001
Gross Receipts & Franchise Tax Adjustments	1011
Order of Curtailment	1031
Miscellaneous Special Charges	1041
Miscellaneous Terms and Conditions	1051
Municipal Fees and Taxes	1053
Unrecovered Purchased Gas Cost Adjustment	1071
Temperature Adjustment Clause	1141
Performance Based Rate Change (PBRC)	1201

Payment
Bills are to be paid within 20 days after the date of Company's bill to Customer.

Rates Authorized By The Oklahoma Corporation Commission:

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September 22, 2010	578795	PUD 201000048
December 18, 2009	572180	PUD 200900110

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RATE SCHEDULE 102-V
SPECIAL LOW INCOME RESIDENTIAL GAS SERVICE – VOLUNTARY FIXED PRICE PROGRAM

Availability
Customers who subscribe for service under this tariff shall remain under this tariff for the entire fiscal year period in which this program is offered, beginning in November of the current year and ending in October of the following year. Additionally, those customers under this tariff will utilize the Company's Temperature Adjustment Clause (TAC) and are not eligible to opt out of TAC as provided in Tariff 1141, Section 2 while enrolled in the Voluntary Fixed Price (VFP) Program. Customers are required to re-subscribe to the program each year, provided that the VFP Program continues to be offered. Customers not specifically electing to continue under the VFP Program will revert back to their applicable tariff.

Natural gas service under this rate schedule is available only to those individually metered single family residential customers who are qualified by the Department of Human Services (DHS), and who are certified to Oklahoma Natural Gas by the DHS annually for payments under the federally funded Low Income Home Energy Assistance Program (LIHEAP). Gas sold under this rate schedule is for domestic uses at any point on the Company's system. Natural gas service under this tariff is also available to any individual metered single family residential customer who is qualified by DHS and who is certified to Oklahoma Natural Gas by the DHS annually for payments under the federally funded Low Income Home Energy Assistance Program (LIHEAP) that is on the system of another pipeline with respect to which the Company has an agreement with such pipeline or is taking gas pursuant to a tariff for such service but only to the extent that: (1) such single family residential meter exists as of the effective date of this tariff; (2) service is required by operation of law; or (3) service is agreed to by such other pipeline.

This tariff shall also be available for individually metered two-family dwellings when the customer meets the following two (2) criteria: (1) The customer is responsible for payment of the bill; and (2) The customer is an occupant of one of the two dwellings served by the single meter. This rate shall not be available for any 3-(or more)-family dwellings served by one meter. The Company shall have the right to determine and confirm from time to time that the customer meets the criteria contained

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herein. Denial of access to the property to determine compliance with such criteria shall constitute grounds for denial of service pursuant to this tariff.
Gas service is not available under this rate schedule for resale to others or for standby service.

Rate

The charge for recorded consumption of gas at one point of delivery in any month is as follows:

Customer Charge			$3.900 per Month
First	3	Dth per Month @	$2.350 per Dth
Over	3	Dth per Month @	$0.079 per Dth

Note: Meter readings will be recorded in hundreds of cubic feet (.1 Mcf) or multiples thereof.

Commodity Cost of Gas

The indicated rates do not include the applicable commodity cost of gas which shall be added pursuant to Special Terms and Conditions, Tariff No. 1001-V - 2009.

Subject to:

Special Provisions	**Tariff**
Purchased Gas Adjustment Clause (PGA)	1001-V
Gross Receipts & Franchise Tax Adjustments	1011
Order of Curtailment	1031
Miscellaneous Special Charges	1041
Miscellaneous Terms and Conditions	1051
Municipal Fees and Taxes	1053
Temperature Adjustment Clause	1141
Performance Based Rate Change (PBRC)	1201

Payment

Bills are to be paid within 20 days after the date of Company's bill to Customer.

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